



News Release

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DGS Begins Serology Testing for COVID-19 at State Public Health Lab

*~ Antibody testing will support Virginia's efforts to track
disease exposure statewide ~*

RICHMOND – The Department of General Services today announced the state's public health lab, the Division of Consolidated Laboratory Services (DCLS), has begun serological testing for COVID-19 to help public health officials track exposure to the disease statewide.

Serology testing, more commonly known as antibody testing, detects the presence of antibodies that indicate someone has been exposed to the virus that causes COVID-19. The body produces antibodies to fight off such infections.

“Virginia's public health laboratory plays an important role in our commonwealth's COVID-19 response, and antibody testing is another tool we can use to not only fight the disease but to gain a better understanding of how it is impacting our citizens,” said **DGS Director Joe Damico**.

As the state's public health lab, DCLS has a unique role. The lab typically is the first in the commonwealth to start testing for new and emerging public health threats, such as viral or bacterial diseases, and it also helps other public and private labs stand up their testing. Once other labs take over the diagnostic demands of testing for the commonwealth, DCLS turns its efforts to surveillance in order to track the impact of the disease on Virginia's population. That's where antibody testing comes in to play.

With COVID-19, DCLS began using a molecular test called polymerase chain reaction, or PCR, which detects the virus's genetic material, on February 29, 2020. The PCR testing shows

if a person currently is infected with the virus. While other labs offer antibody testing to help individuals understand if they may have been exposed to COVID-19, DCLS will work with public health officials to determine populations to test to gain a better understanding of how the disease has and continues to spread in Virginia.

“It is necessary to have a full picture of the breadth of the disease when we are working to determine where the disease is traveling and where to target resources,” said **Marilyn Freeman, deputy director of DCLS**, who is leading the lab’s antibody testing efforts. “PCR tells who is infected now but doesn’t show everyone who has been infected. The antibody test fills that gap. It can’t be used for diagnosis but it can be used for surveillance to see how many people have been exposed.”

DCLS scientists are using testing that looks for both IgM and IgG total antibodies. The presence of antibodies without documented illness can be used to potentially identify asymptomatic carriers of the virus, who don’t experience symptoms but have antibodies in their blood.

The serology test used at DCLS is high throughput, meaning that it can process a large number of samples in a short time, with results in about 20 minutes. A small team of DCLS scientists can test up to 220 samples per hour, should demand arise. The team has a large inventory of testing supplies and does not foresee issues with supply shortages at this time, as have been experienced by some labs for molecular tests.

“I think in the future, this test will support understanding of vaccinations,” Freeman said. “Research is going on now to see if the presence of antibodies offers long-term immunity from the virus, so we hope our results will contribute to that understanding.”

For more information, visit www.dgs.virginia.gov.

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